

CZECHOSLOVAKIA

ZAVADIL, Rostislav, MVdr, CSc

Brno

Brno, Veterinarstvi, No 11, November 1966, pp 499-501

"Flux of parasites to nonspecific hosts under zoo conditions."

ZAVADIL, Slavomir, inz.

Fifty years of the sugar beet breeding in Semice. Listy cukrovar
79 no.2:39-41 F '63.

ZAVADIL, Slavomir, inz.; MECHANICKY, Igor, inz.

Effect of the different nutrient doses on the relative
sugar beet transpiration. Rost vyroba 9 no.10:995-1002
0 '63.

1. Vyzkumny ustav reparsky, Semcice.

ZAVADIL, Slavomir, inz.

The 50th anniversary of the foundation of the Sugar Beet Research Institute. Vestnik vyzk zemedel 9 no.10:478-487 '62.

1. Reditel, Vyzkumny ustav reparsky, Semice.

KAS, Vaclav, dopisující člen; KOSIL, Vladimír, dopisující člen; KALANDRA, Augustin, akademik; PARIZEK, Miroslav, dr.; TOMSIK, Boleslav, prof.; PATOCKA, Jan, dr., kandidát biologických věd; CHURY, Jiri, doc. dr.; PAV, Jaromír, dr.; JANDA, Jiri, dr.; KANAK, Karel, inz.; ZAVADIL, Zdeněk, inz.

Discussion of the report of the scientific secretary of the Czechoslovak Academy of Agricultural Sciences. Vestník CSAZV 7 no.1/2:100-118 '60. (EEAI 9:7)

1. Vysoká škola zemědělská a lesnická, Brno (for Kas, Parizek, Tomsik, Chury). 2. Vysoká škola zemědělská, Praha (for Kosil). 3. Předseda VI. odboru Československé akademie zemědělských věd (for Kalandra). 4. Výzkumný ústav lesního hospodářství, Banská Středice (for Patocka). 5. Výzkumný ústav lesního hospodářství a myslivosti Československé akademie zemědělských věd, Zbraslav (for Pav, Janda, Kanak, Zavadil).

(Czechoslovakia--Agriculture)

ZAVADIL, Z.

Cork trees in Czechoslovakia. p. 1. (SBORNIK RADA LESNICTVI. Praha) (Vo. 30, no. 1,
Jan. 1957

SO: Monthly List of East European Accession (EEAL) LC, Vol. 6, No. 7, July 1957. Uncl.

ZAVADIL, V.

Problem of sorting in data-processing machines. p. 342.

AUTOMATIZACE. Praha, Czechoslovakia. Vol. 2, no. 11, Nov. 1959.

Monthly list of East European Accessions (EEAI) LC, Vol. 9, no. 1, January 1960.

Uncl.

TATAK, Vaclav; ZAVADIL, Vladimir, dr. inz.

Use of automatic computers in the operational planning of
piece production. Podn org 18 no.2:64-67 F'64

1. Vitkovicke zelezarny Klementa Gottwalda, Ostrava.

ZAVADIL, Z.

ZAVADIL, Z. Generative crossbreeding of walnuts. p. 571.

Vol. 29, No. 7/8, Aug. 1956.

SBORNIK. RADA LESNICTVI

AGRICULTURE

Praha, Czechoslovakia

So: East European Accession, Vol. 6, No. 2, Feb. 1957

LANGEROVA, M.; ZAVADILOVA, Z.; SOUKUPOVA, T.

Results of bacteriological studies on postmortem material from pulmonary tuberculosis, & a suggestion for hygienic measures for protection of autopsy room personnel. Cas. lek. cesk. 98 no.24:746-748
12 June 59.

1. Vyzkumny ustav tuberkulozy v Praze, reditel doc. dr. R. Krivinka
M.L. Praha 12, Srobarova 48.

(TUBERCULOSIS, PULMONARY, pathol.

bacteriol. of postmortem material, hyg. measures for
protection of autopsy room personnel (Cz))

(AUTOPSY

hyg. measures for protection of autopsy room personnel
from postmortem tuberc. material (Cz))

CZECHOSLOVAKIA/Microbiology - Microbes Pathogenic for Man and
Animals. Bacteria. Mycobacteria.

F

Abs Jour : Ref Zhur Biol., No 22, 1958, 99519

Author : Langerova, M., Meislova, M., Zavadilova, Z., Soukupova,
T.

Inst : -

Title : Immunizing Action of DCG and of the M-Vaccine Upon the
Course of Experimental Tuberculosis in White Mice.

Orig Pub : Rozhl. tuberk. a nemococh plicnich, 1957, 17, No 4, 318-
321

Abstract : DCG vaccine or M-vaccine was injected into the caudal
vein in mice; the mice were infected within 4 weeks
with a culture of the strain D217 adapted for mice.
All the experimental animals were killed within 4 weeks
and the average weight of their organs was determined.
The average weight of the lungs of the infected mice
was 1 g; that of the immunized and then infected ones

Card 1/2

CZECHOSLOVAKIA/Microbiology - Microbes Pathogenic for Man and
Animals, Bacteria, Mycobacteria.

F

Abs Jour : Ref Zhur Biol., No 22, 1958, 99519

was 0.5 g. The results of the experiment demonstrated the protective action of the vaccination upon the condition of the lungs of mice subjected to infection, since the weight of that organ in the vaccinated and then infected mice proved to be significantly smaller than in mice infected but not submitted to vaccination. The determination of the weight of the spleen in the experimental animals confirmed this deduction. It is the opinion of the authors that the protective action of both vaccines is identical. -- L.M. Model'

Card 2/2

- 106 -

SULA, L.; ZAVADILOVA, Z.; MEDULANOVA, L.; POKORNY, J.

New vaccine against tuberculosis. II. Characteristics of Mycobacterium muris Wells OV 166 and preparation of vaccine. Med. dosw. mikrob. 5 no.1:23-37 1953. (CIML 24:5)

1. Of the State Institute of Hygiene, Prague, Czechoslovakia, Third Division of Microbiology and Epidemiology, Department of Tuberculosis Research and Diagnosis.

SULA, L.; ZAVADILOVA, Z.; MEDULANOVA, L.; POKORNY, J.

New vaccine against tuberculosis. 2 communication. Characteristics of the strain, Mycobacterium tuberculosis, murine type - Wells OV 116, and preparation of the vaccine. Cas.lek.cesk. 91 no.6:161-171 8 Feb 52.

1. Statni zdravotnický ústav v. Praze. III. odbor pro mikrobiologii a epidemiologii. Oddelení pro výzkum a diagnostiku tuberkulózy.
(MYCOBACTERIUM TUBERCULOSIS,
murine type, characteristics & prep.)

ZAVADINSKAYA, K. YE.

34231. Zavadinskaya, K. Ye. Voprosy ob issledovanii volos, 34231 Kriminalistika
i Nauch-Sudeb. Ekspertiza. S.B. Z. Kiyev, 1949, C. 115-18

SO: Knizhnaya Letopis' NO. 6, 1955

ZAVADYNSKAYA, K. YE.

34232. O Poluchenii Syvorotki Ant-O. Kriminalistika i Nauch.-Sudeb. Ekspertiza.
SB. Z. Kiyev, 1949, C. 119-23

SO: knizhnaya Letopis' NO. 6, 1955

ZAVADINSKAYA, K. YE.

34230. Zavadinskaya, K. Ye. Dobavochnyye agglyutiny v sukhoy Krovi.
Kriminalistika i Nauch - Sudeb. Ekspertiza. SB. Z. Kiyev, 1949, C. 125-33.

SO: Knizhnaya Letopis' NO. 6, 1955

ZAVADINSKAYA. K. YE.

34233. Zavadinskaya, D. Ye. Faktor Vremen. V Ne otorykh reaktsiyakh immuniteta.
Kriminalistika i Nauch.-Sudeb. Ekspertiza. SB. Z. kiyev, 1949, C. 149-50

SO: Knizhnaya Letopis' NO. 6, 1955

ZAVADIVKER, B. N.

Cand. Tech. Sci.

Dissertation: "Three-Dimensional Reinforced-Concrete Frames Possessing
Cyclic Symmetry and Their Application in the Frame
Foundations of Cooling Towers."

17 Oct. 49

Moscow Order of Labor Red Banner Engineering Construction Inst.

imeni V. V. Kuybyshev

80 Vecheryaya Moskva

Sum 71

MOROZOV, N.V., laureat Stalinskoy premii, kandidat tekhnicheskikh nauk;
ZAVADIVKHA, B.M., kandidat tekhnicheskikh nauk.

Joints of precast reinforced concrete posts using a minimal amount of
steel. Stroil.prom.31 no.12:20-22 D '53. (MLBA 7:1)
(Reinforced concrete construction)

ZAVADIVSKA, B. H.

"On the Calculation of Spatial Single Layer Frames Having Cyclical Symmetry," Issled.
po Teorii Socruzheniy, No 6, 1955, pp 187-196

Discusses the calculation of the strength of a frame which consists of a series of identical columns equally spaced around a circle, fastened below and connected above by a broken cross bar. Consideration is given to the action of an elementary vertical, radial and tangential load in one of the nodes. Two methods are used: (1) expansion of the load into a finite trigonometric series, and (2) application of finite difference equations. (RZh Mekh, No 5, 1955) SO: Sum.No. 713, 9 Nov 55

ZAVADIVKER, B.H., kandidat tekhnicheskikh nauk

Selection of structural design for apartment houses making allowances for earthquake resistance. Stroi. prom. 33 no.7: 25-29 J1 '55. (MIRA 8:9)

1. Institut stroitel'noy tekhniki Akademii arkhitektury SSSR (Earthquakes and building)

ZAVADIVKER, B. N.

RAPPOPORT, T. B. Kand. Arkhitektury i GORNOV, V. N. Chl - Korr. Akademii Arkhitektury
SSSR, ZAVADIVKER, B. N. Kand. Tekhn. Nauk, KALMANOK, A. S. Kand. Tekhn. Nauk

Nauchno-issledovatel'skiy institut stroitel'noy tekhniki Akademii Arkhitektury SSSR

Ratsional'nyye Konstruktsii Zhilykh Zdanii V seysmicheskikh Rayonakh Page 68

SO: Collections of Annotations of Scientific Research Work on Construction, completed
in 1950. Moscow, 1951

Zavadiyker B. N.

97-10-2/14

AUTHORS: Burgman, V.V., Dr. of Mech. Sciences; Zavadiyker, B. N.,
Candidate of Mech. Sciences. Mayshtadt, L. I., Engr.

TITLE: A New Sectional Monolithic Reinforced Concrete Con-
struction of Multistoried Industrial Buildings.
(Novyye sborno-monolitnyye zhelezobetonnyye konstruk-
tsii mnogostazhnykh promyshlennykh zdaniy).

PERIODICAL: Beton i Zhelezobeton, 1957, Nr.10. pp. 381-389 (USSR).

ABSTRACT: As a result of investigations carried out during the
last three years the majority of building organizations
have accepted as optimal the 6m x 6m column arrange-
ment for industrial buildings as indicated in Fig.1.
The width of the buildings were standardized as 16,
24, 30 and 36 m. The author of this article, in colla-
boration with V. V. Zhilinyi, Can. of Arch., solved the
problem of the construction of a sectional reinforced
concrete skeleton and floors for standardized multi-
storey industrial buildings. Fig.2 gives a typical
section of this new design. The floor height was stan-
dardized as 4.5 m. The load bearing construction was
designed for 1,000 kg/m² of superimposed load. Fig.3
illustrates section and details of reinforced concrete
floor construction. Fig.4 shows junction of floor

Card 1/3

97-10-2/14

A New Sectional-Monolithic Reinforced Concrete Construction of Multi-story Industrial Buildings.

and supporting head of the column. The floor slabs are 4,800 x 1,500 mm in size, 190 mm high, and 1.75 tons in weight with four oval holes (see Fig.5). Their reinforcement is of pretensioned high tensile steel and mesh. Slabs spanning columns are 4,800 x 1,600 mm in size and 240 mm high, weighing 2.6 tons (see Fig.1). The head slab of the column is shown in Fig.7 and the section of the column in Fig.8. The columns are jointed together by welding of the reinforcement. The load bearing units are made from concrete Mark 300, basement columns of concrete Mark 400. Experience of the construction of a printing works in Kiev, designed by Giprokinopoligraf, indicates that this system is of considerable advantage. Fig.9 gives alternative methods of constructing a standard floor. The Leningrad factory, Barikada, and some Moscow factories concentrate on the manufacture of hollow "infilling" slabs for housing purposes. Table 1 gives requirements of concrete and steel for the manufacture of precast structural elements of a skeleton of a multi-storey industrial building. Table 2 gives technical and economic data on a five-

Card 2/3

A New Sectional-Monolithic Reinforced Concrete Construction of
Multistoreyed Industrial Buildings. 97-10-2/14

storey industrial building, and Table 3 gives quantities of concrete and steel required for a skeleton and roof of a six-storey high industrial building in comparison with other constructional methods. New types of multi-storey sections of industrial buildings are being designed by the No.6 Planning Institute of the Ministry of Wireless Industry (No.6 Inst.ministerstva radiotekhnicheskoy promyshlennosti) in collaboration with the Institute for Industrial Buildings and Constructions (Institut promyshlennyykh zdaniy i sooryzheniy) of the Academy for Building and Architecture of the USSR (Akademii stroitel'stva i arkhitektury SSSR) on the request of the Gosstroy of USSR. There are 3 Tables and 10 Figures.

AVAILABLE: Library of Congress.

Card 3/3 1. Buildings-Construction

ZAVADIVKER, R.N., kand.tekhn.nauk

Selecting structural schemes for reinforced concrete frames of
multistoried industrial buildings. Biul. stroi. tekhn. 15 no.8:
9-13 Ag '58. (MIRA 11:9)

1. Nauchno-issledovatel'skiy institut promyshlennykh zdaniy i
sooruzheniy Akademii stroitel'stva i arkhitektury SSSR.
(Industrial buildings) (Precast concrete construction)
(Steel, Structural)

ZAVADIVKER, B.N.

Unification of values of the carrying capacity of reinforced
concrete articles. Standartizatsiia 28 no.2:30-34 F '64.
(MIRA 17:3)

TSYGANKOV, I.I., inzh., red.; LOPOVOK, L.I., kand. arkh., red.;
ZAVADIVKER, B.N., kand. tekhn. nauk, red.

[Construction specifications and regulations] Stroitel'nye
normy i pravila. Pt.I. Sec.V. ch.5.[Reinforced concrete
products; general instructions] Zhelezobetonnye izdeliia;
obshchie ukazaniia (SNiP I. V.5-62). 1963. 25 p.
(MIRA 17:4)

1. Russia (1923- U.S.S.R.) Gosudarstvennyy komitet po delam
stroitel'stva. 2. Gosstroy SSSR (for TSygankov). 3. Mezhdome-
stvennaya komissiya po peresmotru Stroitel'nykh norm i pravil
(for Lopovok). 4. Tsentral'nyy nauchno-issledovatel'skiy in-
stitut eksperimental'nogo proyektirovaniya zhilishcha Akademii
stroitel'stva i arkhitektury SSSR (for Zavadivker).

ZAVADIVKER, B.N., kand.tekhn.nauk

Testing multihollow reinforced concrete panels to be used in
constructing precast girderless roofs. Prom. zdan. no.1:68-80
'59. (MIRA 13:8)

(Concrete slabs--Testing)

KALMANOK, A.S., kand.tekhn.nauk; ZAVADIVKER, B.N.

Unification of calculated loads on the floors of multistoried
buildings for different purposes. Izv. ASIA no.4:88-92 '60.
(MIRA 14:4)

(Floors, Concrete)

(Buildings, Prefabricated)

ZAVADOOSKY, B. M.

"The theory of gonadostimulators and the problem of farm animal reproduction control."
(p. 301) by Zavadoosky, B. M.

SO: Advances in Modern Biology (Uspekhi Sovremennoi Biologii) Vol. XXII, No. 3, 1946.

ZAVADOVA, H.; REZACOVA, D.

The use of the complement fixation test for typing of
poliomyelitic viruses. J. hyg. epidem. (Praha) 8 no.2:
264-268 '64.

1. Institute of Sera and Vaccines, Department of Virology,
Prague.

VONKA, V.; JANDA, Z.; SEJON, J.; ADAM, E.; ZAVADOVA, H.; ADAMOVA, V.; STAREK, M.

Experiences with a new attenuated poliovirus type 3 USOL-D bac
developed in Czechoslovakia. Cesk. epidem. 13 no.6:358-369 R '64.

1. Ustav ser-a ockovacich latek, Praha.

VONKA, V.; JANDA, Z.; SIMON, J.; ADAM, E.; ZAVADOVA, H.

Results of investigation of type 1 viruses isolated from paralytic patients in the period following mass vaccination with Sabin's vaccine in Czechoslovakia in 1960. J.hyg. epidem., Praha 3 no.1: 58-76 '64

1. Institute of Sera and Vaccines, Virus Research Department and Clinical and Epidemiological Department, Prague, Czechoslovakia.

*

STANINEC, M.; ZAVADOVA, H.

Immunity after mitigated and inapparent course of measles.
Cesk. pediat. 20 no.1:2-7 Ja '65

1. Infekční klinika v Praze v nemocnici na Bulovce (pred-
nosta - prof. dr. J. Prochazka) a Ustav ser a ockovacich latek
v Praze (vedouci virolog. oddeleni MUDr. D. Slonim).

ZACEK, Karel; VONKA, Vladimir; ZAVADOVA, Hana; ZACKOVA, Zdena

Evaluation of diagnostic laboratory methods used in the virological control of vaccination against poliomyelitis in Czechoslovakia. J. Hyg. Epidem., Praha 2 no.4:448-456 1958.

1. Institute of Sera and Vaccines, Prague. K. Zacek, Ustav ser a ockovacich latek, Praha 12, Srobarova 48, Czechoslovakia.

(POLIOMYELITIS, differential diagnosis,
laboratory technique in vacco. control in Czech.)

ZAVADOVA, Hana; ZACEK, Karel; VONKA, Vladimir

Complement-fixing antibody response after administration of inactivated and oral poliovirus vaccines. J. hyg. epidem., Praha 7 no.4:487-494 '63.

1. Department of virology, Institute of Sera and Vaccines, and Institute of Epidemiology and Microbiology, Prague.

*

ADAM, E.; STANINEC, M.; KUBATOVA, E.; HALIK, J.; MORAVA, V.; MARES, I.;
ZAVADOVA, H.; DREVO, M.

Vaccination against measles with live vaccine in a pediatric
department. Cas. lek. cesk. 104 no.2:38-46 15 Ja '65

1. Ustav ser a ockovicich latek, Praha (reditel - MUDr. J. Malek);
Infecni klinika, Praha-Bulovka (prednosta - prof. dr. J. Prochazka,
DrSc.) a Detska psychiatricka lecebna, Oparany (reditel - MUDr.
V. Vojtik).

DREVO,M.; ZAVADOVA,H.; MARES,I.; ADAM.E.

Use of the neutralization test and the complement fixation reaction for demonstration of antibodies against measles. Cas. lek. cesk. 104 no.2:47-49 15 Ja '65

1. Ustav ser a ockovacich.latek, Praha, (reditel MUDr. J.Malek).

ZAVADOVA, H.; STANINEC, M.; DREVO, M.

Antibody formation in measles. Cas. lek. cesk. 104 no.2:49-51
15 Ja '65

1. Ustav ser a ockovacich latek, Praha (reditel MUDr. J. Malek) a
Infekcni klinika v Praze 8 Bulovka (prednosta - prof. dr.
J. Prochazka, DrSc.)

Veterinary Medicine

CZECHOSLOVAKIA

GDOVINOVA, A.; POLONY, R.; VRTLIK, J.; ZAVADOVA, J.; Department of Infectious Diseases, Veterinary Faculty, College of Agriculture (VSP, Veterinarska Fakulta, Katedra Infekcných Chorob), Kosice.

"Use of the Color Test in Laboratory Diagnosis of the Classical Powl Plague."

Prague, Veterinarni Medicina, Vol 12, No 1, Jan 67, pp 19 - 25

Abstract [Authors' English summary modified]: The optimum cell concentration with the highest activity during a 4-7 day observation period was $1-2 \times 10^6$ of chicken embryonal cells. Best results were obtained in Earl's medium. Most distinctive color changes were obtained with a 10% concentration of the serum. A comparison of the results of the color test with titration in the stationary KEB test tube cultures showed practically the same values by both methods. The differences were within a single order of magnitude. 2 Tables, 8 Western, 5 Czech references. (Manuscript received 2 Jul 66).

1/1

SCHUHJOVA, V.; ZAVADOVA, M.; STUMPA, G.

Complement fixation toxoplasma antigen prepared in tissue culture.
J. hyg. epidem. 7 no.1:68-73 '63.

1. Institute of Epidemiology and Microbiology and Institute of
Sera and Vaccines, Prague.
(COMPLEMENT FIXATION TESTS) (TOXOPLASMA)
(TISSUE CULTURE) (ANTIGENS)

KALENDA, R.; ZAVADOVA, M.

Patients with active tuberculosis in nontubercular wards of health institutions. Cas. lek. cesk. 104 no.9:245-250 5 May 65.

1. Tbo oddeleni UNZ ONV v Praze 4 (vedouci lékař a obvodní ftizeolog MUDr. R.Kalenda) a Mikrobiologické oddelení Thoraxové nemocnice v Praze 4, (vedoucí lékařka MUDr. M. Zavadova, CSc.).

ZAVADOVA, Z-; ZAVADA, J.

The induction of mutations in encephalomyocarditis with nitrous acid. Acta virol. (Praha) [Eng.] 9 no.1:65-70 Ja '65

1. Institute of Virology, Czechoslovak Academy of Sciences,
Bratislava.

ZAVADA, J.; MRNA, E.; ZAVADOVA, Z.; RADA, B.; KOVACOVA, E.

Agent isolated from human leukaemic serum, causing transformation of cells in vitro. Neoplasma (Bratisl.) 11 no.6:649-554 '64.

1. Institute of Virology, Czechoslovak Academy of Sciences, Bratislava, Czechoslovakia.

ZAVADOVA-SUCHANOVA, Milada

Stages in the formation of L forms of bacteria. J. hyg. epidem., Praha
5 no.1:116-121 '61.

1. Institute of National Health of the Central National Committee.
Department of the Microbiology of the Thomayer Hospital, Prague.

(BACTERIA)

SHVINDLERMAN, G.S.; ZAVADOVSKAYA, E.N.

Determination of lower aluminum alkyls by the hydrolysis method.
Zav. lab. 31 no.1:32-34 '65. (MIRA 12:3)

1. Institut neftekhimicheskogo sinteza AN SSSR.

5/17/61 1000/1001/1022/1023

YU.YE. LITVINOV, Yu.Ye. Litvinov, S.S.

$$\frac{d^2}{dt^2} \left(\frac{1}{x} \right) = - \frac{2}{x^3} \frac{dx}{dt}$$

$$\frac{z}{z_0} = \frac{\ln \frac{1}{x}}{1 + x \ln \frac{1}{x}}; \quad x = \frac{2f}{\sqrt{Na}} \quad (5)$$

where l and \dot{l} are the luminescence pulse amplitudes at a

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E202/E420

EXPERIMENTAL RECORDING ...

... of the ...

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Experimental checking

5/139/63/006/001/022/027

1962/1/42

frequency characteristics. Eq.(5) was checked for the case of the photoconductivity of CdS, using as samples industrial photo-

resistors. The range of values of the light flux Φ when plotted as $\lg \Phi = f(1/\sqrt{N})$. The light beam from a small lamp was modulated mechanically and produced a well defined square wave form.

ASSOCIATION: Taganrogskiy radiotekhnicheskiy institut
(Taganrog Radiotechnical Institute)

SUBMITTED: January 3, 1962

Card 2/3

BUSHUYEVA, T. M.; DENYKO, E. V.; ZAVADSKAYA, I. G.; RAKHIMOV, G.; SEMIKHATOVA, O. A.;
CHESNOKOV, V. A.

"The effect of heating of the leaf on the physiological activity of its cells
and subcellular structures."

report submitted for 10th Intl Botanical Cong, Edinburgh, 3-12 Aug 64.

AS USSR & Leningrad State Univ.

ZAVADSKAYA, I.G.

Rate of the increase of the heat resistance of plant cells
after a short preliminary exposure to high temperature.
Bot. zhur. 48 no.5:755-758. My '63. (MIRA 17:1)

1. Botanicheskly institut imeni V.L. Komarova AN SSSR,
Leningrad.

COUNTRY : USSR
 CATEGORY : Plant Physiology. General Problems.
 ABS. JOUR. : RZhBiol., No. 5, 1959, No. 19932
 AUTHOR : Skazkin, F.D.; Zavadskaya, I.G.
 INST. : Academy of Sciences USSR
 TITLE : Effect of Insufficient Soil Moisture and Nitrogen Supply on Microsporogenesis in Barley.
 ORIG. PUB. : Dokl. AN USSR, 1957, No.1, 150-152
 ABSTRACT : Under the conditions of the vegetative experiment nitrogen (2 norms of nitrogen calculated in Helriagel's mixture as a 1% solution of $\text{Ca}(\text{NO}_3)_2$) was applied to the soil into the containers 3-4 days before the light stage began in the barley. At the end of the light stage "drought" conditions were created in the experimental containers (moisture content 13% of saturation). The viability of the pollen was determined by Shardakov's method, the plasma's viscosity per Henkel. Soil drought caused
 CARD: 1/3

COUNTRY :
CATEGORY :

ABST. JOUR. : RZhBelol., No. 5, 1959, No. 19932

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT :

abrupt changes in the physiological processes which disturbed the normal procedure of microsporogenesis and resulted in the formation of lifeless pollen. One of the causes in this disturbance was an increase in the viscosity of the plasma. Introduction of N normalized the physiological processes during the "drought" (the plasma's viscosity increased less, tissue moisture rose abruptly, pressure increased) and reduced the percentage of sterile

CARD:

2/3

4

ZAVADSKAYA, M.V., otv. za vyp.; YERMAKOVA, O.P., otv. za vyp.;
LAGUTINA, I.M., otv. za vyp.

[Welcome to the U.S.S.R.!] Dobro pozhalovat' v SSSR!
[n.p. n.d.] (MIRA 16:11)
(Russia--Description and travel)

ZAVADOVSKAYA, N.V., dotsent

Late results of surgical treatment of intestinal obstruction.
Trudy KGMI no.10:343-346 '63. (MIRA 18:1)

1. Iz kafedry fakul'tetskoy khirurgii (zav. kafedroy, zasluzhennyy
deyatel' nauki RSFSR - prof. V.S.Semanov) Kulininskogo gosudarstven-
nogo meditsinskogo instituta.

ZAVADOVA-SUCHANOVA, M.; VYBORNA, M.

Contribution to the diagnosis of *Corynebacterium diphtheriae* in swabs.
Česk. epidem. 11 no.5:281-286 3 '62.

1. Mikrobiologické oddělení a oddělení pro spal a zaskrt Thomayerovy
nemocnice v Praze.

(*CORYNEBACTERIUM DIPHTHERIAE*) (DIPHTHERIA)

PAYCHUK, N. G.; TSYGANKOV, A. A.; ZAVADSKAYA, L. G.

Question of the duration of coccidial invasion in goats. Trudy
Inst. zool. AN Kazakh. SSR 16:208-210 '62.

(MIRA 15:10)

(Coccidiosis) (Parasites--Goats)

ZAVADSKAYA, M.S., kand.med.nauk

Case of areactive presence of glass in the crystalline lens. Vest.
oft. 72 no.5:52-53 S-O '59. (MIRA 13:3)

1. Kafedra glaznykh bolezney (zaveduyushchiy - prof. M.M. Zolotareva)
Belorusskogo instituta usovershenstvovaniya vrachey.
(CRYSTALLINE LENS, for. bodies)

ZAVADOVSKAYA, N.P.

Histophysiological changes in the adrenal in dogs with experimen-
tal exclusion of bile from the organism. Tr. Vsesoiuz. obsh. fiziol.
no. 1:91-92 1952. (CMLL 24:1)

1, Delivered 5 January 1950, Tomsk.

1. ZAVALOVSKAYA, N. P.
2. USSR (600)
4. Bile
7. Histophysiological changes in the adrenals in dogs with experimental exclusion of bile from the organism. Trudy Vses. Obshch. fiz. biokhim. i farm. no. 1, 1952.

9. Monthly List of Russian Acquisitions, Library of Congress, Marcy 1953. Unclassified.

1. ZAVADOVSKAYA, N. P.
 2. USSR (600)
 4. Suprarenal Bodies
 7. Histophysiological changes in the adrenals in dogs with experimental exclusion of bile from the organism. Trudy Vses. obshch. fiz. biokhim. i farm. no. 1, 1952.
9. Monthly List of Russian Accessions, Library of Congress, March 1953, Uncl.

ZAVADOVSKAYA, N.V. (Kalinin)

Excretion of neutral red by the digestive tract of rabbits in obstruction of the small intestine. Pat. fiziol. i eksp. terap. 5 no;2:49-52 Mr-Apr '61. (MIRA 14'5)

1. Iz kafedry obshchey khirurgii (zav. - prof. A.P.Yurikhin) Vinnitskogo meditsinskogo instituta i iz kafedry fakul'tetskoy khirurgii (zav. - prof. A.G.Karavanov) Kalininskogo meditsinskogo instituta.
(INTESTINES--OBSTRUCTION)

ZAVADOVSKAYA, N.V.; LEVASHOV, G.V. (Kalinin)

Gastrogenic tetany. Klin. med. 41 no.7:144-147 J1'63
(MIRA 16:12)

1. Iz kafedry fakul'tetskoy khirurgii (zav. - zasluzhennyy
deyatel' nauki prof. V.S. Semenov) Kalininskogo meditsinskogo in-
stituta na baze 1-y oblastnoy bol'nitsy g. Kalinina (glavnyy
vrach - zasluzhennyy vrach RSFSR A.A. Sokolov).

ZAVADOVSKAYA, N.V.; ZAGORODNYAYA, V.G.

Case of intestinal tuberculosis with stenosed sigmoid. Probl.
tub. no.4:89 '64. (MIRA 18:11)

1. Kafedra fakul'tetskoy khirurgii (zav. - prof. V.S. Semenov)
Kalininskogo meditsinskogo instituta.

ZAVADOVSKAYA, N.V., dotsent

Late results of surgical treatment of intestinal obstruction.
Vest. khir. no.10:112-114 '64. (MIRA 19:1)

1. Iz fakul'tetskoy khirurgicheskoy kliniki (zav. - zasluzhennyy
deyatel' nauki prof. V.S. Semenov) Kalininskogo meditsinskogo
instituta (rektor - dotsent A.N. Kushnev) na baze 1-y Kalininskoy
oblastnoy bol'nitsy (glavnyy vrach - zasluzhennyy vrach RSFSR
A.A. Sokolov).

ZAVADOVSKAYA, N.V.

Renal adenoma complicated by a rupture. Vop. onk. 11 no.8:105-106
'65. (MIRA 18:11)

1. Iz kafedry fakul'tetskoy khirurgii (zav. kafedroy -
zasluzhennyy deyatel' nauki prof. V.S.Semenov) Kalininskogo
meditsinskogo instituta (rektor - R.D.Novoselov) na baze 1-y
oblastnoy bol'nitsy (glavnyy vrach - zasluzhennyy vrach RSFSR
A.A.Sokolov).

ZAVADOVSKAYA, T.A.

F-3

USSR / Microbiology. Microbes Pathogenic to Humans and Animals.

Abs Jour : R. f Zhur - Biol., No 2, 1958, No 5251

Author : Zavadovskaya, T.A.

Inst : Not given

Title : Serologic Characteristics of Proteus Microorganisms of Various Origins

Orig Pub : V sb.: Uslovno-patogen. mikroby i ikh rol' v sabolevani-yakh alimentarn. proiskhozhdeniya, L., Medgiz, 1955, 31-37

Abstract : A study was conducted of enzymatic and serological properties of 131 proteus cultures isolated in food infections, from wounds, food products, water and from feces of healthy people. All the cultures studied are related to 3 varieties in their ability to ferment carbohydrates and

Card : 1/2

ZAVADSKAYA, T.N.

Some properties of magnetotelluric sounding curves. Prikl. geofiz.
no.40:95-100 '64 (MIRA 18:1)

ZAVADOVSKAYA, V.N.; MAL'SHIN, V.M.

Determination of dissolved gases in liquid titanium tetrachloride.
Zav. lab. 31 no. 12:1447-1448 '65 (MIRA 19:1)

1. Bereznikovskiy filial Vsesoyuznogo nauchno-issledovatel'skogo
i proyektного instituta alyuminiyevoy, magniyevoy i elektrodnoy
promyshlennosti.

NESTAYKO, V.V., dotsent; ZAVADOVSKAYA, Ye.I.

Work of the Lugansk Society of Pathoanatomists during 1960-1963.
Arkh. pat. 27 no.3:90-92 '65. (MIRA 18:5)

1. Predsedatel' Luganskogo obshchestva patologoanatomov (for Nestayko). 2. Sekretar' luganskogo obshchestva patologoanatomov (for Zavadovskaya).

GARDASHNIKOV, F. L.; NESTAYKO, V. V.; ZAVADOVSKAYA, Ye. I. (Lugansk)

Development of a planocellular nonkeratotic cancer in the tissue
of a primary scleroma of the oral cavity. Vrach. delo no.6:
140-142 Je '62. (MIRA 15:7)

(RHINOSCLEROMA) (MOUTH--CANCER)

19

Determination of the porcelain porosity with the aid of a microscope. N. K. Zavadskaya, Zavadskaya Lab. G. 1021-2 (1937).—The Florenskii and Zamyatshenski methods of prep. samples for the microscopic exam. are critically discussed. Chas. Blanc

USSR/Electricity - Dielectrics
Breakdown

21 Nov 51

"The Theory of Electric Breakdown of Solid Dielectrics," A. A. Vorob'yev, Ye. K. Zavadoskaya, Tomsk Polytech Inst imeni S. M. Kirov.

"Dokl Ak Nauk SSSR" Vol LXXI, No 3, pp 375-377

Describes expts testing the theory that electric breakdown occurs when the energy accumulated by electrons and transmitted by them to the lattice is sufficient to break the bonds between the ions of the material. Crystals of alkali halide salts were selected for the expts because their lattice

214T32

energies are mainly det'd by Coulomb forces and the values are known. Submitted by Acad A. F. Ioffe
10 Sep 51.

ZAVADOVSKAYA, Ye. K.

214T32

ZAVAIKOVSKAYA, YE. K.

USSR/Physics - Dielectrics

1 Dec 51

"Mechanical (Physical) Stresses in Dielectrics During Their Electrical Rupture," Ye. K. Zava-
devskaia, Tomsk Polytech Inst Imeni S. M.
Kirov

"Dok Ak Nauk SSSR" Vol LXXI, No 4, pp 541-543

Acknowledges the helpful discussion of Prof A.
A. Vorob'yev. Investigates the dependence
of elec strength (0 to 3,000 kv/cm) upon the
pressure exerted (0 to 40 kg/sq cm) on a
dielec in an elec field before rupture for
various halides (LiF, NaF, NaCl, KCl, NaBr,

202190

USSR/Physics - Dielectrics
(Contd)

1 Dec 51

RbCl, KBr, NaI, RbBr, RbI); also the depen-
dence of pressure upon the lattice energy.
Submitted by Acad A. F. Ioffe 26 Sep 51.

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202790

CA

Dielectrics with a high dielectric strength. N. K. Zavarovskaya. *Doklady Akad. Nauk S.S.S.R.* 82:709-12 (1963), *ibid.* 81:372(1961).--The previously established formula for the dielec. strength of solid dielectrics of the NaCl type, $E_b \sim \{[7.853(a+b)/(R_A+R_B)]w_{\text{vac}}\}^{-3.9}$, expresses a relation between the close-packing of the lattice, characterized by the factor in [], and the valence bond, characterized by the factor w_{vac} . Calcul. by this formula of E_b for LiF, NaF, KF, LiCl, NaCl, KCl, RbCl, NaBr, KBr, RbBr, LiI, NaI, KI, RbI, MgO, CaO, BaO, and FeO are in good agreement with data of lattice energies. Fluorides, oxides, sulfides, and carbides can be ex-

pected to have a high E_b , except for certain impurity-semiconductor oxides such as Cu_2O , CdO , Ag_2O , MoO_3 , or SnO_2 , which have high lattice energies but low E_b . This inconsistency is probably due to pos. type of elec. cond. and the impurity-conductor nature of these oxides; with increasing field strength, the cond. increases rapidly and breakdown occurs at relatively low field strengths. High polarizability also favors loss of elec. strength; this may lead to a low E_b , despite a high lattice energy, particularly in sulfides and selenides. In solids the 1st stage always consists in a perturbation of the elec. strength through liberation of electrons; the 2nd stage is the breakdown of the lattice proper. The 1st stage is easiest in sulfides, then in oxides, and then in fluorides. In gases the breakdown consists wholly in the 1st stage. N. Thon

ZAVADOVSKAYA, E. K.

Chemical Abst.
Vol. 48 No. 9
May 10, 1954
General and Physical Chemistry

①
The relation between breakdown strength and charge mobility in a dielectric. E. K. Zavadovskaya. Dokl. Akad. Nauk S.S.S.R. 12, 666-6 (1952). — Breakdown occurs at the potential difference E_{br} at which electrons have the lowest mobility and the greatest amt. of interaction with the lattice. For cubic lattices $E_{br} = (2e/ch)(2m)^{1/2}U_0^{1/2}$, where U_0 is the height of the potential barrier for electrons in the dielectric. This formula gives values that are 2-3 times the expel. values.
Cyrus Feldman

9-2-54
J.P.

ZAVADOVSKAYA Ye. K.
USSR/Electricity - Dielectrics

May 53

"Influence of Porosity on the Electrical Strength of Solid Dielectrics," Docent Ye. K.

Zavadovskaya, Cand Phys-Math Sci, Tomsk Polytech Inst im Kirov

^k
Elektrichestvo, No 5, pp 28-29

Cites results of pulse-load testing of some solid dielectrics (porcelain, ebonite). Results show that a reduction of internal porosity is accompanied by an increase in electrical strength. Submitted 2 Aug 52.

2-8700

ZAVADOVSKAYA, YE. K.

The Committee on Stalin Prizes (of the Council of Ministers USSR) in the fields of science and inventions announces that the following scientific works, popular scientific books, and textbooks have been submitted for competition for Stalin Prizes for the years 1952 and 1953. (Sovetskaya Kultura, Moscow, No. 22-40, 20 Feb - 3 Apr 1954)

<u>Name</u>	<u>Title of Work</u>	<u>Nominated by</u>
Vorob'yev, A. A. Zavadovskaya, Ye. K.	"Dielectric Stability of Solid Dielectrics"	Siberian Physicotechnical Institute

80: W-30604, 7 July 1954

ZAVABOVSAAYA, M.

Periodical : Zhur. fiz. khim. 28/7, 1210 - 1212, July 1954

Abstract : The relation between the electrical strength of a ...

Periodical : Zhur. fiz. khim. 28/7, 1210 - 1212, July 1954

Abstract : The relation between the electrical strength of a ...

Institution : The Polytechnicum, Tomsk

Submitted : June 13, 1953

LAVADOVSKAYA, E. K.

USSR/ Physics

Card

Authors

Title : Some remarks on a possible relationship between the F-band of absorption of alkali-halide crystals and the lattice energy of the latter

Periodical : Dok. AN SSSR 9/1, 573-574, Oct. 1, 1954

Abstract : The article advances the possibility of a theory on the relationship

ZAVADOVSKAYA, YE. K.

"Dielectric Strength of Ionic Dielectrics, and the Space-Lattice Energy." Min. Higher Education USSR, Tomsk State U imeni V. V. Kuybyshev, Tomsk, 1955. (Dissertation for the Degree of Doctor of Physical & Mathematical Sciences)

SO: Knizhnaya Letopis', No. 22, 1955, pp 93-105

"APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R001963920015-5

APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R001963920015-5"

VOROB'YEV, Aleksandr Akimovich; ZAVADOVSKAYA, Yekaterina Konstantinovna;
ALEKSEYEV, D.M., redaktor; KUZNETSOVA, Ye.B., redaktor; MURASHOVA,
N.Ya., tekhnicheskii redaktor

[Electric strength of solid dielectrics] Elektricheskaya prochnost'
tverdykh dielektrikov. Moskva, Gos. izd-vo tekhniko-teoret. lit-ry,
1956. 312 p. (MIRA 9:10)
(Dielectrics)

ZAVADOVSKAYA, N. V., dotsent

Differential diagnosis of invagination and dysentery in infants;
advice of a surgeon to young pediatricians. *Pediatrics* no.4:
43-46 '62. (MIRA 15:4)

1. Iz kafedry fakul'tetskoy khirurgii (zav. - prof. A. G. Karavanov)
Kaliniskogo meditsinskogo instituta (dir. - dotsent A. N. Kushnrev)
na baze 1-y Oblastnoy bol'nitsy (glavnyy vrach - zasluzhennyy
vrach RSFSR A. A. Sokolov)

(DYSENTERY) (INTESTINES---INTUSSUSCEPTION)

ZAVADOVSKAYA, YE. K.

USSR/Electricity - Dielectrics, G-2

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 34997

Author: Zavadovskaya, Ye. K.

Institution: None

Title: Electric Breakdown and Mobility of Electrons in Dielectrics and Semiconductors

Original

Periodical: Izv. Tomskogo politekhn. in-ta., 1956, 82, 9-15

Abstract: Electric breakdown in a dielectric is considered as a mechanical damage to the crystal. It is assumed that the energy accumulated by the electrons in the electric field is consumed in destroying the bond between the particles of the lattice, and that thereby the transmission of the energy from the electrons of the lattice occurs particularly vigorously in the case when the electron energy is of the same order of magnitude as the binding energy. Using an experimental linear relationship between the electric strength of the crystals of alkali-haloid salts and the energies of the lattice, the author has

Card 1/2

USSR/Electricity - Dielectrics, G-2

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 34997

Abstract: obtained a relationship for the mobility of the electrons and the field intensity. In strong fields the mobility varies as $u \sim 1/E$, but in weaker fields it varies as $u \sim 1/\sqrt{E}$.

Card 2/2

ZAVADOVSKAYA, YE. K.
USSR/Electricity - Dielectrics, G-2

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 34996

Author: Zavadovskaya, Ye. K.

Institution: None

Title: Results of Experimental Investigation of the Mobility of Electrons
in Semiconductors and Dielectrics in Strong Electric Fields

Original

Periodical: Izv. Tomskogo politekhn. in-ta., 1956, 82, 16-20

Abstract: A survey of several experimental works on the investigation of mobility of electrons in semiconductors and dielectrics. The results of the investigations show in the majority of cases that the decrease in mobility with increasing field intensity obeys the law $u \sim 1/\sqrt{E}$ or $u \sim 1/E$.

Card 1/1

Z ZAVADOVSKAYA, YE. K.

Translation from: Referativnyy Zhurnal, Elektrotehnika, 1957, Nr 1, 112-1-126
p.16 (USSR)

AUTHOR: Zavadovskaya, Ye.K.

TITLE: Disruptive Discharge and Electron Mobility in Dielectrics and Semiconductors (Elektricheskiy proboy i podvizhnost' elektronov v dielektrikakh i poluprovodnikakh)

PERIODICAL: Izv. Tomskogo politekhn. in-ta, 1956, Nr 82, pp.9-15

ABSTRACT: It is assumed that the disruptive discharge is completed with the destruction of bonds between the particles of the crystal lattice. All the energy stored by the electron along its free path is transmitted to the lattice particles and is consumed in breaking down the ties between them. The transfer of energy from the electron to the lattice will attain a maximum when the electron energy is approximately equal to the coupling energy between the lattice particles. At the same time the electron mobility $\mu \approx E^{-1/2}$. A

Card 1/2

Disruptive Discharge and Electron Mobility in Dielectrics (Contd.) 112-1-126

short survey of work on the calculation of u in dielectrics and semiconductors in weak and strong electric fields is given. Assuming that u attains its lowest value during the most intensive transfer of energy from the electrons to the lattice, the author determined the electric strength $E_{py} = \epsilon W / ea_0$, where ϵ is the specific inductive capacitance, W and e are the energy and the charge of the electron, a_0 is the constant of the lattice. The values of E_{py} are close to those obtained experimentally. Bibliography: 10 titles.

Card 2/2

A. A. V.

ZAVADOVSKAYA, Ye.K.

Translation from: Referativnyy Zhurnal, Elektrotehnika, 11251-1530
Nr 1, p. 232 (USSR)

AUTHORS: Vorob'yev, A.A., Zavadovskaya, Ye.K.

TITLE: Physical and Electrical Properties of Ionic Crystals
(Fizicheskiye i elektricheskiye svoystva ionnykh
kristallov)

PERIODICAL: Izv. Tomskogo politekhn. in-ta, 1956, 83, pp.3-21

ABSTRACT: Bibliographic entry

Card 1/1

ZAVADOVSKAYA, YE. K.

Translation from: Referativnyy Zhurnal, Elektrotehnika, 1957, 112-1-1531
Nr 1, p. 232 (USSR)

AUTHOR: Zavadovskaya, Ye.K.

TITLE: Observation on the Connection Between the F-Absorption
Band in Alkali-Haloid Crystals and the Lattice Energy Factor
(Zamechaniye o svyazi F-polosy pogloshcheniya v
shchelochno-galoidnykh kristallakh i energii reshetki)

PERIODICAL: Izv. Tomskogo politekhn. in-ta, 1956, 83, pp.30-31

ABSTRACT: Bibliographic entry

Card 1/1

ACCESSION NR: AR4042157

S/0190/64/000/005/B008/B008

SOURCE: Ref. zh. Elektrotehnika i energetika, Abs. 5B38

AUTHOR: Vorob'yev, A. A.; Vorob'yev, G. A.; Zavadovskaya, Ye. K.; Savintsev, P. A.

TITLE: Some results of investigation of properties of ionic dielectrics

CITED SOURCE: Izv. Leningr. elektrotekhn. in-ta, vy*p. 51, 1963, 171-178

TOPIC TAGS: ionic dielectric, ionic crystal, lattice parameter, dielectric property

TRANSLATION: On the basis of analysis of experimental results, a connection is established between the physical-chemical properties of ionic crystals and alloys with lattice energy U , lattice parameters, molecular concentration, and number of particles in a unit cell. Hardness E_{limit} , thermal and chemical stability of crystals increases with increase of U . Properties of solid solutions are determined by composition and defectiveness of lattice of alloys. Aging of alloys is accompanied

Card # 1/2

ACCESSION NR: AR4042157

by change of defectiveness of lattice and heat of formation Q . Number of particles in a unit cell of hard alloys NaCl - NaBr, KCl - KBr, KCl - RbCl is less, and temperature coefficient of expansion is more, than for pure crystals. The values of Q , $\tan \delta$, temperature coefficient of expansion, and Debye temperature of alloys have a maximum, while ρ and E_{limit} - a minimum in the region of average concentrations of components, which is indicated by the smaller bond of ions and large defectiveness of the lattice of alloys. Measurements of Q of hard alloys established that eutectic alloys are not a mechanical mixture of components. The melting point at the contact of two heterogeneous crystals is lower than the melting point of components by tens and hundreds of degrees; there is observed a mutual dissolution of components. The value of E_{limit} of crystals depends on the polarity of the point, gauge of the sensor, and temperature. With a gauge of several microns, E_{limit} increases with an increase of gauge. The experimental results are presented which indicate the ionization character of breakdown of crystals with the help of the mechanism of impact ionization. Two illustrations. Bibliography: 11 references. [Tomsk Polytechnical Institute im. S. M. Kirov].

SUB CODE: EM, SS

ENCL: 00

Card 2/2

BR

ACCESSION NR: AR4034658

S/0196/64/000/003/B004/B005

SOURCE: Ref. Zh. Elektrotekhn. i energ., Abs. 3B25

AUTHOR: Zavadvorskaya, Ye. K.; Melik-Gaykazen, I. Ya; Treskina, M. N.

TITLE: Effect of impurity distribution in crystals on the electric conductivity.
Abstract

CITED SOURCE: Izv. Leningr. elektrotekhn. in-ta, vy*p. 51, 1963, 179

TOPIC TAGS: crystal electric conductivity, impurity distribution in crystals,
crystal absorption spectrum

TRANSLATION: I. A. Parfinovich's hypothesis about the impurity ions in the crystal-lattice points being responsible for the long-wave line of additional light absorption in the ultraviolet range is corroborated by experiments with crystals KCl — PbCl₂ and NaCl — PbCl₂. The short-wave line of absorption is apparently associated with the impurity ions situated at the borders of contact surfaces in the crystal. The feasibility of observing dual distribution of impurities in a crystal by means of optical absorption spectra permits solving the problem which of the impurities — the segregating one at the boundary or the one forming a regular part of the crystal lattice of the base substance — predominantly

Card 1/2

ACCESSION NR: AR4034658

influences the electric conductivity of the crystal. Experimental results show that Pb introduced into KCl modifies the electric conductivity stronger than Pb introduced into NaCl. Also, the conductivity of KCl -- PbCl₂ grown from an aqueous solution is lower than the conductivity of the same crystal obtained from a melt. This conductivity variation agrees with redistribution of absorption lines in the crystals grown from solution. A prolonged annealing of KCl -- PbCl₂ and NaCl -- PbCl₂ crystals results in a solid-solution decay which is corroborated by a variation in their absorption spectra and in a reduction of their conductivity. [Tomskiy politekhnich. in-t im. S. M. Kirova]

DATE ACQ: 10Apr64

SUB CODE: 88

ENCL: 00

Card 2/2

ACC NR: AP6013468

SOURCE CODE: UR/0139/66/000/002/0155/0157

AUTHOR: Zavadovskaya, Ye. K.; Chernyshev, V. A.

ORG: Tomsk Polytechnic Institute Im. S. M. Kirov (Tomskiy politekhnicheskiy institut)

60
13

TITLE: Effect of preliminary γ -irradiation on the electric properties of single crystals

21

SOURCE: IVUZ. Fizika, no. 2, 1966, 155-157

TOPIC TAGS: gamma irradiation, irradiation effect, single crystal, dielectric crystal, electric property, electric conductance, temperature dependence

ABSTRACT: Conductance σ , tangent of the dielectric loss angle $\tan \delta$, and specific inductive capacitance ϵ of CaF_2 single crystals both irradiated from a Co^{60} source and nonirradiated have been investigated. The absorbed irradiation dose was $1.66 \cdot 10^8$ rad. Conductance σ was measured by means of a d-c amplifier with an electric field intensity of 500 v/cm. Accuracy of σ measurements was 20%. $\tan \delta$ and ϵ were measured by means of an unbalanced bridge in the 100—20,000 cps frequency range. Measurement accuracy was 20% for the tangent of the dielectric loss angle and 0.3% for specific inductive capacitance. Specimen capacitance was within 7 to 12 pf. The specimens were 0.8—1.1 mm thick. Platinum electrodes were deposited by cathode spraying in a vacuum. The same specimens were used for measuring σ , $\tan \delta$ and ϵ .

Card 1/2

2

ACC NR: AP6013468

Measurements were taken in a vacuum $(8-5) \cdot 10^{-4}$ mm Hg at temperatures ranging from 20 to 450C. Curves of the dependence of conductance on temperature show discontinuity in the range 90—130C. For irradiated crystals conductance is equal to that of nonirradiated crystals for the dependence of $\tan \delta$ on temperature show regions both of conductance and relaxation losses. ϵ increases slightly and almost linearly with an increase in temperature. It was also noted that preliminary irradiation results in a decrease both of $\tan \delta$ and ϵ , and in an increase in conductance. Orig. art. has: 3 figures.

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SUB CODE: 09/ SUBM DATE: 25Nov64/ ORIG REF: 001/ OTH REF: 003

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